

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) An image sensor, comprising:

an image acquisition portion;

an image processing portion, receiving image information from said image acquisition portion, said image processing portion including a CMOS circuitry with CMOS differential outputs having an output impedance;

an image receiving portion, having an input impedance, receiving said image information from said CMOS outputs, said image processing portion producing a current mode output and said image receiving portion receiving said current mode output; and

an active impedance matching device, said active impedance matching device being adapted to match said output impedance of said image processing portion to said input impedance of said image receiving portion.

2. (Original) A sensor as in claim 1 wherein said image processing portion includes a portion with a CMOS output.

3. (Original) A sensor as in claim 1 wherein said impedance matching circuit comprises a circuit on said image processing circuit.

4. (Previously Presented) A sensor as in claim 3 wherein an output circuit of said image processing circuit includes a transistor adapted to receive a current bias, wherein a magnitude of the current bias

sets the output impedance.

5. (Original) A sensor as in claim 4 wherein said output impedance is matched to an input impedance of the image receiving circuit.

6. (Original) A sensor as in claim 1 wherein said impedance matching circuit comprises a circuit on said image receiving circuit.

7. (Previously Presented) A sensor as in claim 6 wherein an input circuit of said image receiving circuit includes a transistor adapted to receive a current bias, wherein a magnitude of the current bias sets the input impedance.

8. (Original) A sensor as in claim 4 wherein said input impedance is matched to an output impedance of the image processing portion.

9. (Original) A sensor as in claim 1 wherein said impedance matching circuit comprises a first circuit on said image processing circuit and a second circuit on said image receiving circuit.

10. (Previously Presented) A sensor as in claim 9 wherein said first and second circuits include respective elements adapted to receive respective current biases, and wherein respective magnitudes of the current biases set the respective impedances.

11. (Original) A sensor as in claim 4 wherein said output impedance of said image processing circuit is matched to an input impedance of the image receiving circuit.

12. (Original) A sensor as in claim 1, wherein said image receiving circuit includes a current mirror part, that mirrors an input current.

13. (Original) A sensor as in claim 1 wherein said image acquisition circuit is an active pixel sensor with a photosensor, an in-pixel buffer, and an in pixel select transistor.

14. (Currently Amended) An image sensor, comprising:

an image acquisition portion, wherein said image acquisition portion is an active pixel sensor with a photosensor, an in-pixel buffer, and an in pixel select transistor;

an image processing portion, receiving image information from said image acquisition portion, said image processing portion including a CMOS circuitry with CMOS differential outputs having an output impedance;

an image receiving portion, having an input impedance, receiving said image information from said CMOS outputs, said image processing portion producing a current mode output and said image receiving portion receiving said current mode output; and

an active impedance matching device, said active impedance matching device being adapted to match said output impedance of said image processing portion to said input impedance of said image receiving portion;

[[A sensor as in claim 13]] wherein said image acquisition portion

and said image processing portion operates at substantially zero voltage.

15. (Previously Presented) An image sensor, comprising:

an image acquisition portion;

an image processing portion, said image processing portion being adapted to receive image information from said image acquisition portion at a differential input; and

an impedance matching device, said impedance matching device being adapted to match an output impedance of said image acquisition portion to an input impedance of said image processing portion by adjusting bias current through at least one biased device in a way that renders said input impedance relatively independent of an input current.

16. (Original) An image sensor as in claim 15, wherein said image acquisition portion and said image processing portion each operate in current mode.

17. (Currently Amended) An image sensor, comprising:

an image acquisition portion;

an image processing portion, said image processing portion being adapted to receive image information from said image acquisition portion at a differential input; and

an impedance matching device, said impedance matching device being adapted to match an output impedance of said image acquisition

portion to an input impedance of said image processing portion by adjusting bias current through at least one biased device in a way that renders said input impedance relatively independent of an input current;

wherein said image acquisition portion and said image processing portion each operate in current mode, and [[An image sensor as in claim 16,]] wherein said image acquisition portion and said image processing portion operate at substantially zero voltage.